

Title (en)

Bi-directional infrared communications system

Title (de)

Zweiweginfrarotübertragungssystem

Title (fr)

Système de communication infrarouge bi-directionnelle

Publication

EP 0900992 A2 19990310 (EN)

Application

EP 98202426 A 19980717

Priority

US 90827597 A 19970807

Abstract (en)

An infrared (IR) transmitter modulator/receiver controller (TM/RC) encodes downlink serial digital data and precise time synchronization strobes from a host system to provide a downlink modulated serial digital electrical waveform. At least one IR host system transceiver (HST) converts the downlink modulated serial digital electrical waveform to a modulated downlink IR light waveform. At least one IR remote device transceiver (RDT) receives the modulated downlink IR light waveform from the HST. Each RDT is connected to a remote device. The modulated downlink IR light waveform is converted into a corresponding electrical waveform and further demultiplexed into its downlink serial digital data and precise time synchronization strobes. Each RDT provides an uplink electrical and IR modulated serial digital waveform to be received by the HST for conversion to an uplink demodulated serial digital electrical waveform. The HST transfers the uplink demodulated serial digital electrical waveforms to the TM/RC, thus providing a multiplexed combination of data and time information on the downlink and communication of uplink status information from the remote devices. <IMAGE>

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